WA-34-2060

August 15, 1974

Memo to: Rhys Sterling and Howard Bunten

From:

Shirley Prescott

Subject: Efficiency Survey Conducted at St. John STP.



Scott Jeane and I conducted a routine study of the St. John STP on 5/1/74. Influent and effluent were composited hourly beginning at 1000 hours. The field and laboratory results are shown on the attached report forms.

The plant area was fenced and equipment appeared to be functioning satisfactorily. However, there was a great lack of "housekeeping" which can possibly be attributed to the fact that Mr. Andor, plant operator, also serves his town as everything from dog catcher to meter reader or whatever occasion arises. There was some laboratory equipment visible but it did not appear to have had any use in recent months.

While Mr. Andor's housekeeping left something to be desired, he did seem to have a good knowledge of the plant and its capacities.

The plant was built in 1951 with a capacity of 400 gallons per minute. The population of St. John is 420 people but during the school year the population raises to 600.

SP:jmh

STP Survey Report Form

Efficiency Study Trickling

City St. John	Plant Type Filter	Poj	p. Served <u>4</u>	00-600	Design <u>400</u>	GPM
Receiving Water Ple	easant Creek	Perenn	ial <u>X</u>	Intermitten	t	
Date <u>5/1/74</u> Surv	vey Period 7	hours	_ Survey P	ersonnel <u>s.</u>	Jeane - S.	Prescott
Comp. Sampling Free	quency Hourly	Samp:	ling Alequ	ot 1000 ml		P-17 Non-resident resident in the second second
Weather Conditions	(24 hr) Dry-wind	dy Are	facilities	provided fo	or comple	te by-
pass of raw sewage	? <u>X Yes</u>	No/Frequ	uency of b	ypass Emerge	ency only	
Reason for bypass_		Is by	ypass chlo	rinated?	Yes	X No
Was DOE Notified?	Dischar	ge - Inte	cmittent_	Cont	inuous	NAMES OF THE PROPERTY OF THE P
	Plant	Operation	<u>a</u>			
Total flow 150,000) GPD	_ How mea	asured	Parshall Flu	ne	-PANCAMAN AND AND AND AND AND AND AND AND AND A
Maximum flow .145 MG	<u>GD</u>	_ Time of	f Max	1015		NATO AND CONTRACT OF STREET, MICHIGAN STREET, CONTRACT OF STR
Minimum flow 1 MGD	and the state of t	_ Time of	E Min	1400		- Additional and the second and the
Pre Cl ₂	#/day	Post C	12	3 - 4	<u>#</u>	/day
		d Results				
		uent		rf.	fluent	
7 Determinations			Modian		. Mean	Median
Temp °C	15 13	riean	14	14 12		12
pH (Units)	8 7.8		7.8	8.3 8	1	8
Conductivity (µmhos/cm ²)	820 690		750	850 750		800
Settleable Solids (mls/1)	11 .4	4.3		0 0	0	0
	Laboratory Res	sults on (Composites	·		
	Influent	Effl	ient	% Reduct	tion	
Laboratory No.	74-1436	1437	incess of the Company			
5-Day BOD ppm	76	40 67		47 37	Microsopy Messiannes steller	
COD ppm T.S. ppm	106 450	427		3 / 5	SCAME AND SECTION	
T.N.V.S. ppm	270	272	and the second section of the sectio			
T.S.S. ppm	83	37	Chrometon Company of the Company of	55		
N.V.S.S. ppm pH (Units)	7.8	3 7	. 8	Manuscrate Annual Company of the Com	an acustimanus di	
Conductivity		730				
(µmhos/cm²) Turbidity(JTU's)	670 22	17				

Laboratory Bacteriological Results

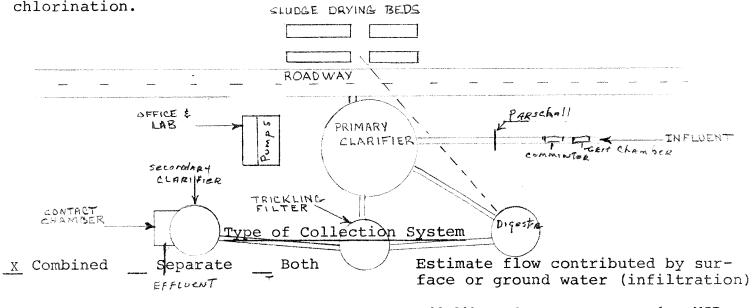
	Time	Total	Fecal	Fecal	2	
		Coliform	Coliform	Strep	15''	3 min
Samp1	es were no	t delivered fr	om airport		. 4	.75
until	too late	to analyze.			.5	1.0
	1				.4	.75
					.3	.75
74-1818	5/23/71	€ 20	< 10			

Additional Laboratory Results

$NO_3-N ppm - 4.10$	
NO ₂ -N ppm20	
NH ₃ -N ppm - 8.8	
T. Kjeldahl-N ppm - 10.6	
O-PO4-P ppm - 1.10	
$T-PO_4-P ppm - 6.38$	

Furnish a flow diagram with sequence and relative size and points of chlorination.

Operator's Name Tony Andor



20,000 with extreme wet weather MGD

Phone No. 648-3413

Plant Loading Info	rmation
Annual average daily flow rate(mgd)	Peak flow rate(mgd)
Dry 150,000 GPD	Dry 400 GPM, 576,000 GPD
Wet	Wet
COMMENTS:	

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WATER QUALITY LABORATORY

			DATA	SUMMA	RY				Ť	AB I LLD
Source St. Johns	STP	nos.				Co	ollecte	d By_	G.S.S.	
Date Collected 5-1	74								a	
Log Number: 7	4- 1436	37	38	39	40	41	ng manadananananananananananananananananana		ooksjooksinsteen stat verkoolinistaassaaniningssa	
Station:	ĺ	EFF					MANAGEMENT OF THE PROPERTY OF			
рН	7.8	7.8	aldrinesių samapovojios		t to the second	99-1-1-1-1	No.		,	
Turbidity (JTU)	22	17			person or com-	magnesses was		· Sekiranojnianski anzuki wa askazi	(1.07) (1.07) (1.07)	′ 070
Conductivity (umhos/cm)	@25c 6 70	730	Allendonomorphisms			American de la constante de la			Generally Villa American	, 0095
COD	106	67				440				00340
BOD (5 day)	76	40		- development			The state of the s)0310
Total Coliform (Col./10	Om1)			****	45520	-	and the second s			31504
Fecal Coliform (Col./10	Om1)		45444		-	•				31616
NO3-N (Filtered)		4.10		n-distribution and						00620
NO2-N (Filtered)		.20		to value verification delication and the second						00615
NH3-N (Unfiltered)		8.8	a you again an	Gündin mi andilli üüügined		- California				00610
T Kjeldaıl-N (Unfilter	ed)	10.6			a kiar - housertha hair nikklenika					00625
004-P (Filtered)	-	1.10								00671
Total Phos -P (Unfilter	ed)	6.38				This work was a season				00665
Total Solids	450	427				No. of Contract Contr				00500
Total Non Vol. Solids	270	272						Siddinkhammigagyagarifinasia u		And the state of t
Total Suspended Solids	83	37				AND THE PROPERTY OF THE PROPER		and tribute and the second		00530
Total Sus. Non Vol. Sol	ids 🐉	3				(P) P) P				
Chlorides		1.						***************************************		
	Caralina Car						The second secon			
		and the second s					The second secon	ngambroskelistiskelenkerroeien s		
					Management and Addition of the A			name idealistic management of the second	***************************************	

All results are in PPM unless otherwise specified Note. ND is 'None Detected" Convert those marked with a * to PPB (PPM \times 10 $^{\circ}$) prior to entry into STORET

* ARRIVED TOO LATE TO RUN

Summary By fagle 9. Well

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DATA SUMMARY

	DATA SUMMARY		IAB FILES
Source St. Johns STP		Collected By <u>& L</u>	
Date Collected 5/23/74		Goal, Pro./Obj	
Log Number: 74- 1818	q management q		STORET
Station:			
рН			00403
Turbidity (JTU)			00070
Conductivity (umhos/cm)@25C			00095
COD			00340
BOD (5 day)			00310
Total Coliform (Col./100ml) \(\lambda_o\)			31504
Fecal Coliform (Col./100ml) (10			31616
NO3-N (Filtered)			00620
NO2-N (Filtered)			00615
NH3-N (Unfiltered)			00610
T. Kjeldahl-N (Unfiltered)			00625
0-P04-P (Filtered)			00671
Total PhosP (Unfiltered)			00665
Total Solids			00500
Total Non Vol. Solids			
Total Suspended Solids			00530
Total Sus. Non Vol. Solids			
No. 6 and 1			
Note: All results are in PPM unless	otherwise specified.	ND is 'None Detected	117

Convert those marked with a \star to PPB (PPM \times 10³) prior to entry into STORET Stylm 9. Date 5-30-74